NATIONAL WEATHER SERVICE

ALBUQUERQUE, NEW MEXICO

New Mexico

Skywatcher

VOLUME 5, ISSUE 2 OCTOBER 2008

RECENT AND UPCOMING COOPERATIVE OBSERVER AWARDS:

- **September 2008**
  Nancy Coonridge
  Near Pietown, NM
  20 Years of Service
- **September 2008**
  Rita Beard
  Abbott, NM
  20 Years of Service
- **October 2008**
  Mary Sullivan
  Dilia, NM
  20 Years of Service
- **October 2008**
  Dwayne Wilkerson
  Newkirk, NM
  15 Years of Service
- **November 2008**
  Jack McCarty
  Near Nara Visa, NM
  25 Years of Service

INSIDE THIS ISSUE:

In This Edition

The Albuquerque National Weather Service Office is pleased to bring you this Fall edition of the New Mexico Skywatcher! This issue of the newsletter will include articles covering a wide array of topics ranging from guidelines for winter weather preparedness to summaries of weather events over the past six months, and other current events happening within the National Weather Service.

The National Weather Service has a great partnership with our public observers in the Coop Program as well as the SKYWARN spotter network. One of the goals of this newsletter is to acknowledge the fine work of our diligent volunteers. It has been said many times before, but it is worth repeating that volunteer observers play a pivotal role in many of the day to day operations of the National Weather Service and its associated agencies. We also would like to congratulate those observers who are being honored with service awards, noted in the left hand column of this page.

Similar to last Spring's edition, this Fall season's Skywatcher will be available for your perusal online from the Albuquerque National Weather Service webpage. We would also like to welcome any new readers of the newsletter, such as our Emergency Managers across northern and central New Mexico. We have a great rapport with the emergency managers and coordinators of New Mexico, and we hope that this newsletter will keep you informed of various events and programs within the Albuquerque Weather Service office.

Author: Todd Shoemake

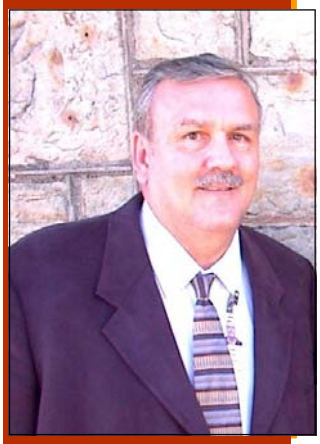
Joe's Place

Cooler weather and snow is on the horizon, and now is a good time to review some guidelines for our cooperative observers. Please remember, when taking snow measurements, there are three values you need to record: snow melt (or liquid equivalent), snowfall accumulation, and snow depth (if snow is present at observation time). Liquid precipitation is rounded to the nearest hundredth of an inch (e.g. 0.66), snowfall to the nearest tenth (e.g. 7.5), and snow depth in whole inches (e.g. 7). If you would like to view a 22-minute video (VHS or DVD) on how to measure snow, please call us at 1-505-243-0702 and we will gladly mail you a copy. If you have a standard 8-inch rain gauge, don't forget to remove the inner measuring tube and the funnel. This will help with melted snow measurements and prevent an overflow of snow in the funnel. Contact our office if you need supplies, such as a replacement rain gauge stick, additional forms, or envelopes.

On page 2, there is an example of a B91 form for reference. Please ensure that you complete the station, month, year, state, and county information on your form. Also, enter the observation times of the temperature and/or precipitation readings, and record the Mountain (M) or Daylight Mountain (DM) indicator.

(Joe's Place Continued on Page 2)

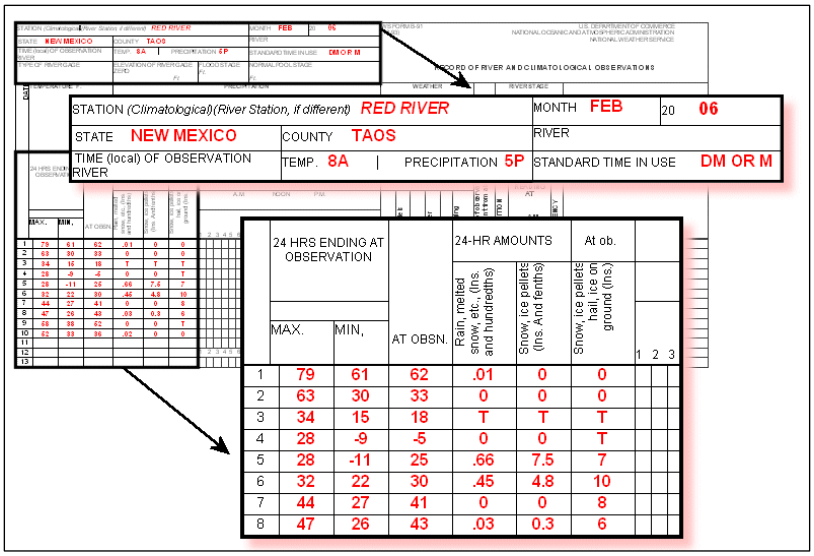
Joe's Place continued...



Joe Alfieri
Observing Program Leader

Also, when entering the data on your forms, please ensure you complete all three precipitation columns, even if it was a precipitation-free day. Entering "zeros" in these columns will save significant time and allow our office to send in your forms to the National Climatic Data Center (NCDC) in a timely fashion.

Please review the example to the right of a complete form with all the necessary station, time, date, and required weather information. There are additional examples and instructions on the front covers of the large booklets.



STATION (Climatological) (River Station, if different) RED RIVER | MONTH FEB | 20 06
STATE NEW MEXICO | COUNTY TAOS | RIVER
TIME (local) OF OBSERVATION | TEMP. 8A | PRECIPITATION 5P | STANDARD TIME IN USE DM OR M
RIVER

	24 HRS ENDING AT OBSERVATION MAX.	MIN.	AT OBSN.	24-HR AMOUNTS Rain, melted snow, etc., (Ins. and hundredths)	Snow, ice pellets (Ins. And tenths)	At ob. Snow, ice pellets hail, ice on ground (Ins.)	1 2 3
1	79	61	62	.01	0	0	
2	63	30	33	0	0	0	
3	34	15	18	T	T	T	
4	28	-9	-5	0	0	T	
5	28	-11	25	.66	7.5	7	
6	32	22	30	.45	4.8	10	
7	44	27	41	0	0	8	
8	47	26	43	.03	0.3	6	

Observer stations with **Fisher Porter Gages (paper tape)** use pre-printed labels, and these should be placed on the 9 to 18 inches of blank tape at the beginning and the end of each tape. The labels should not be attached across the tape in order to prevent ripping of the paper, and the feeder holes in the center of the tape should not be covered by the labels. Those using WxCoder III please try to report your data on a daily basis as forecasters use the information to update forecasts. Thanks to those who send in their forms on time; your accurate reports are the backbone of our nation's climatological history.

Author: Joe Alfieri

The Radio Room

Tim Shy
HAM Radio
Program Leader

Thanks to all in the New Mexico amateur radio community from all of us here at WX5ABQ, the resident station for the Albuquerque NWS office. We deeply appreciate a very full summer of outstanding storm spotting and amateur radio in action. Our new dual-band VHF/UHF rig got quite the workout as amateur radio provided a key link between our radar and warning forecasters and numerous sets of well-trained eyes and brains in our SKYWARN corps.

It was ham radio that helped spot severe thunderstorms this summer over eastern and south central sections of the state, and in the wake of flooding in Ruidoso hams in Lincoln County provided some key ground truth at a time when we needed it most. I was especially touched by how many spotters were willing to drop whatever they were doing to pick up their radio and hit the road on our behalf. Thanks. You made a difference, and this is another good example of amateur radio at its best.

The word is out! SKYWARN Recognition Day this year will begin at 5 p.m. MST on Friday, December 5th, and will continue through 5 p.m. MST on Saturday, December 6th. WX5ABQ will be on the air, and we'll be looking forward to working as many of you as possible during the 24-hour period. It's our chance to drop some of what we're doing and give something back to the ham radio community that has given so much to us. Have a great fall season, and let's meet up around the bands! 73 de Tim.

Author: Tim Shy

Rains Improve NM Drought Conditions

Dry desert climates are found across much of the Southwest U.S. including New Mexico. Not only is the average annual rainfall in our desert climate quite low, but the year-to-year variability is extremely high. This large range of precipitation variability often results in the development of drought. Thus far in 2008, the development of widespread drought conditions were noted through the first six months of the year, followed by a dramatic improvement in drought due to normal or well above normal precipitation during our monsoon season.

The recent evolution and improvement of drought conditions for the state are illustrated in the figure at the bottom of the page. These maps indicate the intensity of drought as determined by the U.S. Drought Monitor. Though updated weekly on the web site (http://drought.unl.edu/dm/monitor.html), this figure depicts drought conditions for early March, early July and late September.

During the winter season of 2007-08, a moderate La Niña event was well established in the tropical Pacific Ocean. In New Mexico, La Niña conditions during the cool season are generally associated with below normal precipitation. Following the winter season of 2007-08, the southeast half of the state was abnormally dry due to a lack of winter precipitation. The northwest half of the state was generally void of drought conditions as the winter storm track had favored areas to the north and west of a Raton to Silver City line with above normal (or even record breaking) precipitation.

From mid-March through May, dry and windy springtime conditions persisted for much of the state. The percent of normal precipitation for March, April and May was less that 50% for many sites across the state. Parts of southwest New Mexico were exceptionally dry through the spring with both Las Cruces and Columbus reporting no measurable rainfall.

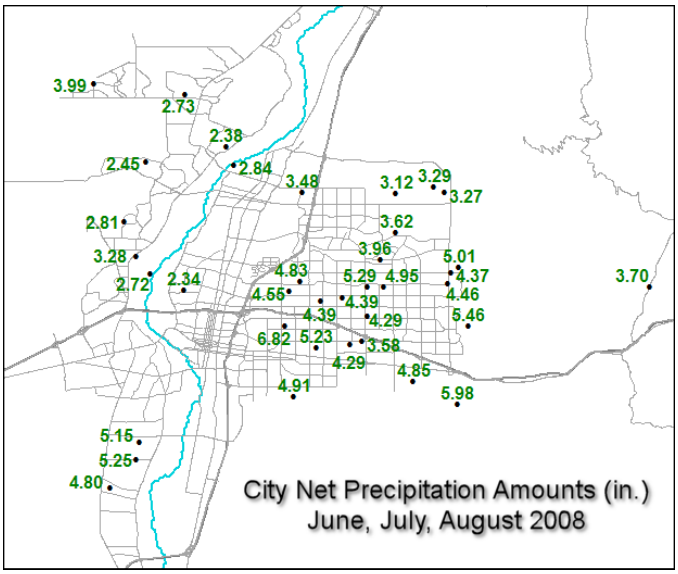
The dry pattern persisted through June, and by early July drought conditions affected all but the northwest corner of the state. Extreme to exceptional drought was noted across much of southern New Mexico as well as the far northeast.

An active monsoon pattern, as well as the remnants of Hurricane Dolly, resulted in well above normal July precipitation for most areas, with record-breaking deluges in southwest and south central New Mexico. The Four Corners region missed out on much of this summer's rainfall, but statewide July and August 2008 combined to be the seventh wettest July through August period of the past 115 years!

As a result of the abundant summer precipitation, drought conditions had improved dramatically across the state, with abnormally dry conditions lingering mainly in the northeast. While it is not unusual for drought to persist for months to even years, sometimes causing extreme economic impacts, the active monsoon season of 2008 helped to turn the table on drought.

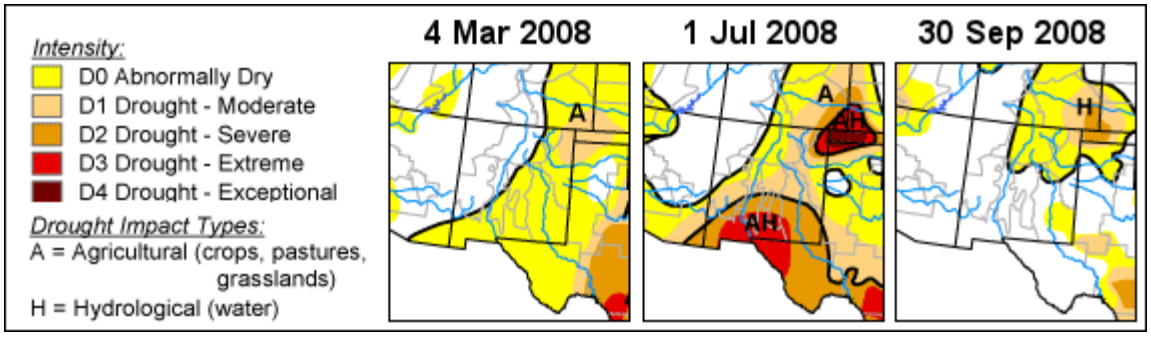
The summer of 2008 also delivered variable rainfall amounts across the Albuquerque metro area. Data from City Net observers indicated that northwest and west central sections of the city fared the worst, with 3-month rainfall totals generally remaining under three inches. Southern sections received the greater drenching with some spots totaling over five inches.

Authors: Deirdre Kann / Ed Polasko / Mark Fettig



New Mexico Drought Assessment

http://drought.unl.edu/dm/monitor.html



Winter Weather Preparedness

'...before winter storms strike, make sure to have enough supplies for everyone in your household for at least three days.'

Winter weather in New Mexico can be harsh as wind and snow often combine to create dangerous travel conditions that may cause deadly crashes or confine residents to their homes for days at a time. We need to be prepared both at home and when driving, and we need to know the meaning of different statements issued by the National Weather Service. The National Weather Service has simplified winter weather statements this season by consolidating many specific statements addressing snow, sleet, and blowing snow into winter storm warnings or winter weather advisories. Specific statements addressing freezing rain and wind chill will continue to be issued, if that particular hazard is the only one occurring at the time.

Winter Storm Watches are issued 12 to 48 hours in advance of when life-threatening winter weather conditions such as heavy snow, significant accumulations of sleet or freezing rain, reduced visibilities in blowing snow, or a combination of any of these elements are forecast. Heavy snow is generally defined as 4 inches or more below 7500 feet and 8 inches or more above 7500 feet.

Winter Storm Warnings are issued for life-threatening winter weather conditions defined in watches, but are posted when these conditions are occurring or are forecast to occur within 24 hours.

Snowfall in Los Alamos, New Mexico December 10, 2007 (Photo Courtesy of Linda Steury)

Blizzard Warnings are issued for the harshest of all winter weather conditions, when strong winds of at least 35 mph combine with snow to reduce visibilities to less than a quarter mile for three hours or longer. These prolonged whiteout conditions can be the most dangerous of all winter weather events since stranded motorists often mistakenly abandon their vehicle, become lost or disoriented in blowing snow, then fall prey to hypothermia and sometimes lose their life. Bitterly cold wind chills are often a deadly component of blizzards.

Heavy Snow falls over the Taos Ski Valley. January 28, 2008 (Photo Courtesy of Seth Bullington)

Ice Storm Warnings are issued when life-threatening accumulations of freezing rain are occurring or are forecast to occur within the next 24 hours, which may make roads treacherous or result in extensive power outages.

Wind Chill Warnings are issued when life-threatening wind chills colder than 35 degrees below zero, which may lead to hypothermia and death from exposure, are occurring or are forecast to occur within the next 24 hours.

'...if you must travel, make sure your vehicle is in good running condition before venturing out.'

Winter Weather Advisories are issued when hazardous winter weather conditions are occurring or are forecast to occur within the next 24 hours. Life-threatening conditions are not anticipated, but death or injury could result if caution is not exercised.

Freezing Rain Advisories are issued when accumulations of freezing rain that cause hazardous driving conditions are occurring or are forecast to occur within the next 24 hours. Life-threatening conditions are not anticipated, but death or injury could result if caution is not exercised.

Wind Chill Advisories are issued when hazardous wind chills between 20 degrees below zero and 35 degrees below zero are occurring or are forecast to occur within the next 24 hours. Life-threatening conditions are not anticipated, but death or injury could result if caution is not exercised.

Winter Weather (continued)

During and after a winter storm, you may not be able leave your home due to impassable roads. Power may also be disrupted because of downed power lines. Therefore, before winter storms strike, make sure to have enough supplies for every person in your household for at least three days. It's best to avoid traveling during a winter storm, but if you must travel, make sure your vehicle is in good running condition before venturing out, and take along winter weather survival items. The following items are recommended:

Blowing and drifting snow in the Jemez Mountains.
March 1, 2007
(Photo Courtesy of Patty Simi)

At home:

- One gallon of water per person per day
- Non-perishable food items
- Extra medicine
- Flashlight with extra batteries
- A lantern or candles and matches
- Battery powered radio
- A portable heater or fuel for the fireplace

When dressing for cold weather:

- Wear several layers of loose fitting, lightweight clothing.
- Wear mittens instead of gloves.
- Wear a hat as most body heat escapes through your head.

In your vehicle:

- Have it winterized before the first storm hits. This includes checking the battery, antifreeze, tires, heater, defroster and wiper blades.
- Keep the fuel tank at least half full.
- Jumper cables
- Shovel
- Sand or kitty litter to provide traction
- An ice scraper and snow brush
- Blankets or extra coats
- Non-perishable food items
- A can and waterproof matches (used to melt snow for drinking water)
- Flashlight with spare batteries

Heavy snow falling south of Luna, New Mexico creating poor visibility and snow-packed roadways.
January 7, 2008
(Photo Courtesy of David Thornburg)

Before traveling:

- Check the latest forecast from NOAA Weather Radio, www.weather.gov/abq or your favorite media source.
- Check the latest road conditions at www.nmroads.com.
- Let someone know where you are going and when you think you will reach your destination.

Author: Ken Drozd

Meet Your Observers

Within each issue of your New Mexico Skywatcher, the National Weather Service in Albuquerque will highlight cooperative observers from across our forecast area (which includes the northern two – thirds of New Mexico). We are proud of the service you provide our nation, and we want to acknowledge your hard work.

Author: Joe Alfieri

Central New Mexico

Vera Henderson
Golden Observer

Vera Henderson has been the weather observer in Golden, New Mexico for over 44 years, monitoring and reporting the weather to the National Weather Service Forecast Office in Albuquerque. Vera Henderson started observing weather while running the Henderson store in Golden back in 1964.

Vera Henderson was born in Golden, and was one of nine children. She went to the Harwood Boarding school for 12 years and graduated as Valedictorian of her class in 1944. Her parents Ernest and Lucy Riccon purchased a general store in 1918 in Golden that existed before the turn of the century, and her father was one of a few licensed gold buyers at the time. Vera and her husband, a naval pilot from another small town near Golden, raised two children as well as a few nieces and nephews within their extended family. After a 13 year stint in Albuquerque to explore new work opportunities, her family returned to Golden in 1962 and resumed management of the Henderson store. During the 1980s, Vera started selling mostly Native American jewelry, pottery, and other hand-made items. Vera is known for donating her time and energy to various animal groups and local organizations.

Vera Henderson's many years of dedicated support to the National Weather Service and her community make her an outstanding representative of the cooperative observer network.

In Memory Of...

The last year has been a difficult time for the Cooperative observer program. Unfortunately, five observers passed away, leaving the program with a loss of dedicated individuals and their many years of experience. These were some of the finest observers in the state, and they will be missed greatly. The names and stations of these observers are:

Michael Hays	- Brazos Lodge
Nancy McPherson	- Clovis
John Price	- Corrales
Gene McDorman	- Fence Lake
Phil Kelly	- Picacho

Two other observers recently gave up their observer positions due to illness. They were:

Richard DesJardins	- Sandia Park
Nathan Bauler	- Springer

The Cooperative program is very important to the National Weather Service, and the data that is received from the program makes up a vast collection used to generate a climatological record of not only New Mexico, but also the broader United States. These observers and their many years of dedicated service will be sorely missed by the Albuquerque office. New observers have been designated to some of these sites, but additional volunteer observers will be called upon to fulfill duties at remaining sites in the near future.

Author: Joe Alfieri

SKYWARN and StormReady

In the Spring 2008 edition of the New Mexico Skywatcher, we explored SKYWARN, a national program whereby trained volunteers relay reports of severe weather to the National Weather Service. Over the past year, the National Weather Service office in Albuquerque provided nearly two dozen SKYWARN training sessions across the northern two-thirds of New Mexico, stretching from Aztec to Socorro, Roswell to Clayton, and several other communities in between. Over 300 participants, including emergency managers, law enforcement, amateur radio operators, and public volunteers learned severe weather safety tips and the basics of spotting and how incredibly vital their reports are in the protection of life and property. These SKYWARN sessions are most frequently conducted across the state during the spring and summer months, but if you were unable to attend a previous session, don't worry. Training sessions can be conducted at any time throughout the year, so stay abreast with the latest news on our local SKYWARN webpage at http://www.srh.noaa.gov/abq/skywarn/skywarn.php. If you are interested in becoming a SKYWARN spotter, you are more than welcome to participate, provided that you are a year-long resident of New Mexico, 18 years of age or older, and fully able to observe severe weather in your community. For more information about the SKYWARN program, please feel free to contact the people below or you may reach us at our business address located at the end of this publication.

SKYWARN Recruiters:

Jesus Haro
Warning Coordination Meteorologist
NWS Albuquerque
Email: Jesus.Haro@noaa.gov

Timothy Shy
HAM Radio Program Leader
NWS Albuquerque
Email: Timothy.Shy@noaa.gov

On July 15th, the National Weather Service in Albuquerque recognized San Juan County in northwest New Mexico as the first StormReady county in the state, joining more than 1,300 other StormReady communities throughout the United States. StormReady, a nationwide community preparedness program uses a grassroots approach to help communities develop plans to handle local severe weather and flooding threats. The program is voluntary and provides communities with clear-cut advice from the local National Weather Service forecast office and state and local emergency managers. The program began in 1999 with seven communities in the Tulsa, Oklahoma area. To be recognized as StormReady, a community must establish a 24-hour warning point and emergency operations center; have more than one way to receive severe weather forecasts and warnings and to alert the public; create a system that monitors local weather conditions; promote the importance of public readiness through community seminars; and develop a formal hazardous weather plan, which includes training severe weather spotters and holding emergency exercises. A special ceremony was held at the San Juan County Commissioners Meeting where officials were presented with StormReady signs (shown in image to the right).

Authors: Daniel Porter / Jesus Haro

By The Numbers

Albuquerque Rainbow
July 10, 2008
(Photo Courtesy of
Darrell Hall)

The spring and summer seasons of 2008 had mixed results pertaining to precipitation. After a wet and white winter over northwest New Mexico, March and April were generally drier than normal, especially over the west and central areas. May was wet across the east, but again mostly below normal in the west. June was drier than normal statewide, even across the eastern plains. July was by far the wettest month of the spring or summer across the Land of Enchantment, as monsoonal moisture made an impressive entrance. The monsoon began to wane over the west in August as precipitation was generally back to below normal readings, but much of the east remained wet. The table below lists the top five precipitation totals from March through August 2008. The race for top honors again went to Cloudcroft, just as it did in the spring and summer of 2007.

Location	Precipitation (Mar-Aug)	Co-op Observer
Cloudcroft	20.40 inches	David Gilbreath
Alto 1N	18.73 inches	Jim Kaveladge
Ruidoso 2NNE	17.47 inches	Fire Department
Winston	16.70 inches	Robbie Montgomery
Gascon	16.25 inches	Editha Bartley

As usual, there were several periods of hot weather this summer. Sizzling temperatures peaked during mid June across New Mexico, with another hot spell in late July through early August. The table below reveals the top four locations with the highest temperatures this summer.

Author: Chuck Jones

Location	Highest Temperatures	Date	Co-op Observer
Bitter Lake NWR	109 degrees	June 3	Wildlife Refuge
Fort Sumner	108 degrees	June 20	Betty Dunlap
Fort Sumner	107 degrees	June 19	Betty Dunlap
Bosque Del Apache	106 degrees	June 15, 16, 20	Wildlife Refuge
Ute Dam	105 degrees	June 16	Kent Terry

National Weather Service
Albuquerque,
New Mexico

2341 Clark Carr Loop SE
Albuquerque, NM 87106-5633
Phone: 505-243-0702
E-mail: sr-abq.webmaster@noaa.gov

Working Together to Save Lives.

How would you like to receive future issues?

The New Mexico Skywatcher will be available on your NWS website at http://www.weather.gov/abq. If you do not have access to the internet or would simply like a copy in the mail, return this portion to the NWS at the address on the left. We can notify you when the newest version of the newsletter is updated on the NWS website via email. If you would like to be notified via email, submit your request to **sr-abq.webmaster@noaa.gov** (make sure to state your name and email address).

«FirstName» «LastName»
«Address1»
«Address2»
«City», «State» «PostalCode»